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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,107	11/26/2003	Keiji Okada	1155-0275P	6197
2292	7590	07/07/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			ASINOVSKY, OLGA	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 07/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/721,107

Applicant(s)

OKADA ET AL.

Examiner

Olga Asinovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 10/157,872.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ver Strate et al U.S. Patent 4,804,794.

The rejection is set forth at pages 2-5 of the office action mailed on 02/16/2005 and it is incorporated here by reference.

3. Applicant's arguments filed May 16, 2005 have been fully considered but they are not persuasive. The arguments are that reference discloses segmented copolymers of ethylene and at least one other alpha-olefin monomer comprises "two or more copolymer segments having nearly identical ethylene content, and each segment has a broad (not narrow) intramolecular composition distribution of ethylene judging from the slope of ethylene content vs. fractional length along counter chain," page 6 in the remarks.

4. Ver Strate discloses at least two olefin block copolymers of ethylene and at least one other alpha-olefin monomer wherein the copolymers have different crystallinity value. The crystallizable copolymer segments comprise at least about 57 wt.% of ethylene content, most preferably at least about 63 wt.% and which is not greater than

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95 wt% and most preferably <75 wt%, col. 10, lines 50-54. These crystallizable segments are readable in applicants' claimed (ii) block copolymer. The low crystallinity copolymer segments contain an average ethylene content of from about 20 to 53 wt%, and more preferably from about 35 to 50 wt%, col. 10, lines 59-61. These low crystallinity copolymer segments are readable in applicants' claimed (i) block copolymer. Also, reference discloses that a more preferred minimum of ethylene content is about 30%. The preferred maximum ethylene content being about 80 wt%, col. 18, lines 39-42. The ethylene content in each block copolymer is overlapping the amount of ethylene units in the present block (i) and block (ii).

The molecular weight of copolymer can vary over a wide range. The preferred minimum is about 20,000. The preferred maximum is about 1,000,000, col. 18, lines 47-54. The molecular weight distribution (MWD) is very narrow, col. 18, line 68. The preferred copolymers have Mw/Mn less than about 1.5 and less than about 1.25, col. 19, lines 6-8 and claims 8-9 and 90-91 at columns 39 and 45. The MWD is readable in applicants' claims.

There are no process conditions in the present claims. The applicants argue that the intramolecularly heterogeneous chain of Ven Strate has a broad (not narrow) intramolecular composition distribution. Ven Strate does not disclose an intramolecular composition distribution having absolute value of 0.1 to 0. Reference discloses that the controlled segmented nature of the polymers is essential to their performance, col. 9, line 66. The property of the copolymer related to intramolecular compositional dispersity (Intra- CD), col. 12, lines 55-58. The intramolecular composition distribution is

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depending on the process conditions that can be predicted, col. 19, lines 10-16. The block copolymer in Ver Strate has the same properties for using as viscosity index improvers or viscosity modifier for a lubrication oil composition, col. 28, lines 41-42. It would have been obvious to one of ordinary skill in the art to consider that the intramolecular composition distribution of 0.1 to 0 could be obtained in Ver-Strate because reference does disclose different ethylene content in each block copolymer, different crystallinity value of each block copolymer, the narrow molecular weight distribution and the same property of using.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Olga Asinovsky  
Examiner  
Art Unit 1711

0. A  
June 30, 2005

  
James J. Seidleck  
Supervisory Patent Examiner  
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